Arhe XV, 30/2018
UDK 001.892
001.35
Originalni naučni rad
Original Scientific Article

RUDOLF BERNET
Husserl Archives/Institute of Philosophy, University of Leuven, Belgium

CRISIS IN MODERN AND CONTEMPORARY SCIENCE

As part of ceremony of the anniversary of the Faculty of Philosophy in Novi Sad, on **December 8th 2016**, The Philosophy Department had the honor to host **Professor Rudolf Bernet,** Professor Emeritus of the Institute of Philosophy and long-term director of the Husserl Archives in Leuven. He held a lecture entitled ***Crisis in Modern and Contemporary Science***. The lecture was dedicated to the eightieth anniversary of the first publication of Husserl's book *Crisis of European Sciences and Transcendental Phenomenology.* First two parts of the book were published in Belgrade in the journal *Philosophia*, edited by Professor Arthur Liebert. The lecture was held in English, after which colleagues had the opportunity to talk with the Professor. Furthermore we present main parts of the lecture and some of the discussions.

LECTURE

Prof. Rudolf Bernet:

I've been here before already so it's pleasure to be back. Last time I was speaking here, my colleague and friend Prof. Dragan Prole was sitting inside of that cabin shun off from myself so I am happy to have him close to me to support me in my talk. It is a great pleasure to be back here, to be able to lecture but also to learn more about the history of Serbia in personal conversations. 1936, eighty years ago, was a difficult year in Edmund Husserl's life. He had originally three children, one of them died in the First World War as an

officer, and the other two children, daughter and son, emigrated to the United States because, as university professors, the son and son-in-law had lost their jobs. Back in 1936, Husserl was not mentioned any longer in the official lists at University of Freiburg, I am not sure whether he was still allowed to enter the University, but he certainly had no means to publish his recent research in Germany. In these circumstances, in 1936, he spent most of the year reworking the most successful lectures he had given in November 1935 in Prague on the *Crisis of European sciences*. A revised and extended version of these lectures was sent to Prof. Liebert from University of Belgrade, and published in new philosophical journal, I think that it was in the first volume of *Philosophia*. But Husserl had been revising his text for a whole year. The galley proofs two first parts of the *Crisis* were sent by Husserl on December16th 1936, precisely eighty years ago. In these times publication was quicker than nowadays, so it was published by the end of December.

The *Crisis of European Sciences* was Husserl's attempt to reach a wider public but also to address wider issues, to step beyond the mainly theoretical philosophy he had been working on for his entire life. So Husserl's *Crisis* was really his philosophical testament. Less than two years after first two parts of *Crises* were published in Belgrade Husserl died. Otherwise, it would not have been possible for Husserl to see some of his last and most important work published. Good reason for us to think gratefully about what the intellectual hospitality of Serbia has offered to Husserl's legacy. On the other hand, no good reason to celebrate, because Husserl's account of the crises of European of sciences which he addressed as crises of European mankind and identity by no mean belongs to the past. It's difficult to read Husserl's *Crises* again without thinking about its actuality for the present situation. The Pope has said recently that we are in the beginning of the Third World War. I'm not so sure about that, but there are many resemblances with the time when the *Crisis* was written just before Second World War. By all means Europe is still and certainly more so than twenty years ago in state crisis.

Let me then just tell you briefly what I want to talk about. The nature of reason has been an object of discussions since early Greeks. There has always been diversions about the nature of rationality among philosophers belonging to a same culture or two different cultures, also between philosophers and sophists, philosophers and theologians, philosophers and scientists, philosophers and artists, etc. In Western civilization things have rapidly changed in Modern Times when a specific conception of theoretical rationality, the one developed by natural sciences, had become dominant at the expense of all other conceptions. Other forms of theoretical rationality were increasingly repressed or reduced to the method of objective natural science and its formal

mathematical language. No wonder then that the emergence of modern natural science was quickly followed by the ideology of scientism. This profound change affected philosophy and humanities, and also the life-sciences. Philosophy began avoiding metaphysical speculation and turned to physical positivism. Even when philosophers attempted to escape from the prevalent philosophical positivism by promoting philosophical worldviews (*Weltanschauungen*) they remained under the spell of the scientism they wished to overcome. The situation of the humanities was similar. Whether human sciences capitulated before the power of natural science or tried to resist it, the specter of mathematical natural science remained powering over them. Naturalization of all forms of spiritual life or relativism and irrationalism must be understood as positive or as negative reaction of the human sciences to the success of the method of natural sciences and to the ideology of scientism. In his *Crisis* Husserl emphasizes the success of the modern science and says that to be successful is no reason for being justified. Given the success of modern science it seems likely that the crises affecting natural sciences could only come from the outside.

This hypothesis is confirmed by the facts that the well-known crises affecting sciences in late 19th and early 20th century were indeed mainly about the foundations of formal and natural sciences and about their consequences for human life and its natural environment. What can also be said, is that in these crises one witnesses a return of what had been repressed by the dominant model of modern scientific rationality. For Husserl the main symptom of the crises affecting modern natural sciences is it's estrangement from human needs and from the human life-world. He traces the origin of this crisis goes back to the separation between science and philosophy in Modern Times. Husserl also thinks that only with a help of new kind of philosophical science the crisis of European sciences can be overcome. However, looked at more attentively, contemporary natural science turns out to be different from the natural sciences in Modern Times. One can account for the difference by referring to an increasing tendency to a greater formalization, operationalization, optimization and rationalization in contemporary science. Scientific research nowadays functions differently and it is organized and managed differently. In this change the new instruments for calculation and exchange of information must be considered to be only the means, not the causes. One can also say that in comparison to modern science, contemporary science has become more predictable and more uniform, that it leaves less room for plurality of approaches and unpredictable experimentation. But the difference between modern and contemporary science can be best described in terms of a new regime of power. The power of control modern science provides on na-

ture and on its possibly destructive forces changes with contemporary science into the new goal of an increase of potentialization of power for the sake of power, will to power. According to this view that I shall develop further, contemporary science is driven by a nihilistic will to power. I shall account for this will to power in terms of Freud's theory of the *death drives*. When all that counts is self-affirmation and growth of its own excessive power, then science does not only have destructive consequences, it finishes by destroying itself. Such loss of a proper meaning and such excess of aimless functioning manifest themselves clearly in fact that scientific research programs have become more and more dependent on socio-political and even monetary contexts and on international competition between rivalry research groups. As a consequence, in contemporary science the crisis arises now from the inside of science. Science risks destroying itself, not only by lending its hand to the development of arms of mass destruction but also by failing to fix itself reasonable goals for its own research. This shows from the fact that scientists feel frustrated and estranged from own work by the policy of leaders of research groups, and these, in turn, feel estranged from their own work by the decisions and the power of managers and administrators who very often depend on political power. Instead of extending the human power on Nature, contemporary science becomes involved in endless power games. Needless to say that if this analysis is valid, then the crisis affecting contemporary science is in need of other remedies then those prescribed by Husserl to cure modern science from its estrangement from the life-world.

Everybody agrees with Husserl that modern science begins with Galileo Galilei and there is very famous paragraph about Galileo Galilei in Husserl's *Crises*. Many specialists of Galileo think that the account is not entirely accurate historically, but nevertheless it was one of the most influential parts of Husserl's *Crisis*. What name Galileo Galilei stands for is of course the mathematization of nature. Clearly, this gave natural science a new power unknown before, the power to elevate itself above the observation of empirical facts, the power to predict events that had never been observed yet. It gave it a great power of efficiency through a method universally applicable in all domains of science. It is clearly on that backgrounds that scientists and philosophers alike were dreaming again of some kind of *mathesis universalis*. Galileo's method was a method supposedly common to all sciences. With the power efficiency also came a great optimism and belief in the progress of science. One should not forget, however, and Husserl emphasizes this no less than Heidegger, that modern science also accomplishes a kind of ontological revolution. Hence forth, it was the image mathematical science had projected on nature that was supposed to express true nature of the reality. Clearly, in this substruction of

a mathematical model to human experience was lost. All philosophical reflections about the crises of modern science are about what had been lost in the process of making modern science so successful. We will hear more about how Heidegger and Bergson were thinking about these issues. Let me just emphasize now that the development of modern science owes a lot to new technical devices. It is thus not correct to distinguish modern science from contemporary science by calling contemporary science a techno-science and to suggest that modern science had nothing to do with technology, as if technology were a merely contemporary issue. We all know what Galileo's new theory owes to the invention of new optical instruments of measurement, etc. One also needs to make further distinctions when accounting for technology in the contemporary frame. It is far from certain that all different branches of contemporary technology can be brought together under one hat.

Husserl's reflections on Galileo Galilei's method had basically the intention to show that it involves a kind of construction. He tried to think about the costs of this most successful construction. So you will find in Husserl's *Crisis* an analysis of how science is based on a kind of leap, a kind of jump into idealization. Those of you who are familiar with the *Crisis* will remember these passages where Husserl describes that you can empirically flatten a physical body but you will never get geometrical concept of flat surface. Geometry proceeds with a kind of jump that Husserl calls idealization. Idealization is a construction or constitution and it goes together with a kind of abstraction of certain material determinations of material bodies. The main abstraction is the abstraction from secondary qualities. It goes together with objectification, which means the abstraction from our subjective experience of bodies. Most of Husserl's reflections about the crisis of modern science concern the costs of this abstraction, or what has been lost underway in terms of subjective experience and of what Husserl calls the life-world. Husserl then wants to build a way into transcendental phenomenology on the basis of the life-world that is shown to be the forgotten origin of natural science. This is basically the program of the *Crisis* as it was published eighty years ago.

The third part of the *Crisis*, which was not published in *Philosophia*, develops a more traditional way into transcendental-phenomenology, the so-called way through psychology. For Husserl Galileo Galilei's revolution of science involves a kind of formalism, or, in modern words, a modellization of method and objects in natural science, a kind of objectivism. Objectivism means a kind of abstraction from all subjective experience and also a kind of naturalism, an objectification of the mental processes involved in our experience of the objects of natural science. The consequence of this is an estrangement of natural science from natural experience and from natural hu-

man needs. Husserl was greatly concerned about a kind of internal finalism, characteristic of a science progressing within its own limited realm and thereby losing all contact with human needs, their relevance for human life.

It is interesting to mention, and I want to emphasize this for some time, that the power of this new method of natural science had not led to reflection on power. Why is this so? Clearly the notion of power, the notion of force plays no role in Descartes mechanistic philosophy. This can be seen as an advantage, because science is ignoring its own power--naively exercising its own power. This distinguishes modern science from a contemporary science that is clearly geared towards power, a search for the increase of power. Among Descartes' contemporaries there were at least two prominent philosophers who mention the notion of the power as the main characteristic of substance. These two philosophers were Spinoza and Leibniz. Let me just briefly deal with Leibniz. Leibniz develops his physics in opposition to Descartes' mechanical physics and calls it a dynamic physics. Leibniz attempted to reintroduce an Aristotelian understanding of nature into the realm of Galilean mathematical science. I will say few words about this later, I just want to give you a feeling of the fact that what I call modern science and modern philosophy is far from being monolithic. There were diverse orientations in that period.

What does Leibniz say about the nature of physical bodies? He basically says–against Spinoza--that all bodies are individual substances. And what is substance for Leibniz? Substance is combination of forces. You can thus see how a reflection on the power of modern science translated itself into definition of substance in terms of power. What is power of physical bodies? The power of physical bodies is their capacity to move, in Aristotelian words, 'from themselves'. One should not take that is an expression of vitalistic understanding of physical nature, or a kind of animistic picture of physical nature. Nevertheless, Leibniz says that all physical bodies have in themselves the capacity to move from themselves. Bodies in rest are still in some kind of movement. Even rest is a kind of movement. What is it then that it holds bodies back from moving all the time? Spinoza would have sad that it is the influence of other bodies. Leibniz says that there is something in the physical body itself that holds back its potentiality, its power to move from itself. I am suggesting that there is some kind of revolution in Leibnitz, that passivity is introduced in his definition of substance. In Leibniz's terminology all physical bodies are a combination of active forces and passive forces. Of course, it is the active force that pushes a body into a movement, but there is also a passive force in it that he describes as a resistance to movement. Leibniz relates this passive force to Kepler's principle of inertia. There is a kind of active princi-

ple in all physical bodies, a kind of power to move that is held back by the resistance of the body's mass. This completely changes the view on nature, it completely overcomes the mechanistic physics of Descartes. Philosophically most important is, however, that Leibniz introduces, together whith his reflection on power, the reflection on a latent power or a limited power. I take Leibniz to be such essential figure in the 17thcentury, because this finitude of power is, probably for the first time, accounted for in terms of impotence. This finitude of power is no longer due to the power of other bodies, it is a kind of internal limitation. Leibniz accomplishes thus a kind of return to what Heidegger describes as Greek *physis*, a kind of return to an understanding of power in terms of a power that is retained in itself by an in inner obstacle to the full development of the body's power.

Interestingly enough, what Leibniz says about physical bodies also applies to the human spirit. Yesterday I was discussing together with Professor Prole the seven basic sins. Laziness is one of them. For Leibniz laziness of the spirit is a kind of spiritual 'inertia'. Humans have an infinite power to understand. What is it then that makes human intelligence limited? It is not God who wants them to be limited. The limit is in them. Human spirits have always to overcome the internal obstacle in their intellectual inertia. Just as the inertia of their mass is what holds physical bodies back from all the movements they are capable of, mental inertia or laziness is what inhibits the mental forces of human intelligence. Leibniz's *New Essays*, acommentary of Locke's *Essays,* has a very interesting passage about the instability of the human mind--precisely because the human mind is composed of diverse forces, like physical bodies. If you care looking at the fascinating text of the *New Essays*, you will come across a passage where Leibniz accounts for the human mind in terms what he calls '*inquiétude*'. Leibniz's text was written in French, but he mentions that 'inquiétude' is his translation of the ron German '*Unruhe*', *disquietness*. Leibniz reminds us that *Unruhe* also means pendulum, the instrument in watches that makes them going. Human minds are like a watch, not because it is going on forever, but because of its instability. It is the instability of the human mind that makes it progress. If the human mind would be stable, it would be stupid. It is instability of the human mind that provides progress. It is instability of pendulum's movement that makes watch work. So, in Leibniz you can find, in the time of the greatest success of modern science, a new reflection of human finitude, on the limited power and impotence of human minds. A human mind affected by its own instability loses much of its certainty, Cartesian certainty, in Leibniz, becomes the power of a questioning mind. I am going to suggest that this might be a way out of the crises of contemporary science under the form of a return to the Socratic method of questioning.

Husserl's account of modern science in the *Crisis of European Sciences* expresses the concern that science has lost much of its relevance because it has estranged itself from ordinary people's concerns. Husserl also thinks, which is even more true today, that science has not only lost some of its own orientation by setting itself unreasonable goals, but science has also lost its former role to provide an orientation to people's life. The causes for this crisis are, as I already sad, naturalization, formalization, objectification… What are then the remedies proposed by Husserl to this crisis of European sciences? Husserl thought that only a retrieval of the Greek ideal of theoretical science could save us from the fatal consequences of the crises of modern science. This means a kind of re-foundation of science based on its Greek origin. This is very similar to Heidegger's idea of step back to pre-Socratic thinking. We need to step back to the Greeks to restore the faith in theoretical science that has been lost on the way. The return to the Greeks also meant for Husserl a return to a conception of *theoria*, theory, where philosophy and science would still be one thing, a return to a stage of *theoria* before the division between philosophy and the sciences. Husserl thought, indeed, that the crisis of European sciences was caused, among other things, by the complete separation between philosophy and science in Modern Times. Returning to the Greek ideal of theoretical science means an attempt to invent new kind of philosophy that would be a true science and provide a foundation for all particular sciences. And you can guess that it is transcendental phenomenology that was supposed to be this new universal science. Husserl had the hope that his transcendental phenomenology would be restoration of the lost ideal of *mathesis universalis*, of truly universal science. This sounds little bit crazy and too optimistic.

Let me then explain in a few simple words what the program of this transcendental phenomenology was for Husserl. You can approach it through the idea of a synthetic a-priori. Philosophy cannot be a matter of a simple observation of facts. This conviction explains Husserl's opposition to positivism. If philosophy would again become a science, it would have to go beyond the facts, it would have to become an a-priori science, or as Husserl putted it a little bit awkwardly, a science of essences. On the other hand, against the formalism of contemporary sciences and the mathematization of natural world, its a-priori would have to be an a-priori with a content, therefore a synthetical a-priori. Phenomenology is dealing with essences that concern the content of things. However, phenomenology doesn't deal with synthetic a priori judgments. Phenomenology is not about the logos of thing but about the logos of phenomena. What phenomena? The subjective experiences of objects. What is so particular about that subjective experience of objects, and what makes it transcendental in Husserl's senses is that this experience constitutes

the meaning of objects. Husserl's answer to the crises of European sciences is a kind of transcendental subjectivism, because subjective experience has been completely left out by modern sciences. But the phenomenological science is about the essence of this subjective experience and the capacity of subjective experience to constitute meaning. How do we then get access to this transcendentally constituting subjectivity? This access is provided by the different ways into transcendental phenomenology, the different phenomenological reductions. There is so-called way through psychology, there is also the so-called Cartesian way. What Husserl has tried only once and only in the *Crisis* is the way through the life-world. That is what I alluded to a moment ago – the life-world being the forgotten origin of all natural sciences. To overcome the unilateral account of human experience by natural science, what is needed is a reflection on the nature of the life-world. We live on the basis of the life-world, we live in a world that is determined not only by secondary qualities, but also by language, history, etc. The return to the life-world is the first step in overcoming the substractions that natural science operates by substituting ideal figures to concretely experienced bodies. This is at the same time the first step into transcendental philosophy. What phenomenology is then about, is explaining natural life as a transcendental life that ignores itself. The importance of the life-world for Husserl's phenomenology is related to his new interest into ontological issues, getting beyond his formerly essentially epistemological interests. He really speaks of an ontology of the life-world. What is so specific to the life-world is that it is a universal world. It is a world that all humans share. Therefore it is universal basis for what is addressed in particular ways by the different kinds of sciences. Against the particularization, specialization of the different sciences Husserl emphasizes the life-world as the universal and concrete basis that all humans have in common. Therefore the description of the life-world is the most opportune basis to go into a new universal science of whatever human experiences have in common, which is the set goal of transcendental-phenomenology.

One can say that Husserl's vision of the possible remedies for crises of modern science culminates in his conception of transcendental subjectivity. Other thinkers like Heidegger and Bergson have claimed that subjectivism is, to the contrary, the ground on which modern science has been built. That is Heidegger's view – Descartes as a subjectivist, and subjectivisme being what led to the crises. Heidegger also assimilated Husserl's transcendental ego with Descartes *ego cogitato cogitatum*. He should have known better and he actually knew better. Very often when he criticizes Descartes Heidegger really wants to criticize Husserl without harming his future carrier. In truth, Husserl is another kind of Cartesian than the kind Heidegger wanted to make of him.

I would be happy to explain that claim of mine. Doubtless, Husserl was sufficiently aware of the excessive and destructive power we can find in contemporary sciences. This represents a threat not just for meaning of the science but also for survival for the entire European humanity. However, Bergson and Heidegger can be seen as more adequately addressing the internal crisis of contemporary science. They booth trace the origin of the excesses of contemporary science back to its unilateral, intellectualistic view on knowledge and understanding. Bergson and Heidegger also question much more radically than Husserl the primacy of the conceptual thinking that characterizes the transcendental subject and its faculty to synthesize and unify many possibly unrelated data. Consequently their remedy to the crises of contemporary science consists in alternative ways of thinking and an alternative conception of rationality. According to Bergson and Heidegger the excess of specialization, formalization, operationalization and optimization one finds in contemporary science must be met with holistic mode of thinking and an intuitive or pre-logical form of understanding. In their view the Cartesian model of a thinking subject must give way to a responsive form of thinking that pays respect to what in life cannot be grasped and appropriated.

I could say more on Bergson and Heidegger. Instead, I rather tell you shortly how I understand the crises of contemporary sciences. I can dispense myself of giving you a long description of the crises of contemporary science, because this is our life-world; this is something that is all too familiar to all of us. Description is one thing, trying to understand what is going on is another. My hypothesis is that contemporary science can best be characterized in terms of Freud's death drive. My suggestion for the remedies for a way out of contemporary crises of science would then be to account for knowledge in terms of desire. Freud discusses the source of the drive, the object of the drive, the goal of the drive etc. What is characteristic for the drive is that the drive, unlike desire, is indifferent to its objects. The sexual drive is opportunistic, it takes whatever object presents itself, it is not in any way attached to a particular object. It is never an object that causes the sexual drive. In philosophical terms: the drive is characterized by a lack of transcendence, it represents a kind of immanentism. All what a drive is concerned about is its own realization. The goal of the drive is regulated by the pleasure principle. And what is this pleasure principle about? The pleasure principle is about doing what one wants to do, and going on doing what one wants to do, taking advantage of all objects that present themselves, not taking into account the reality principle which has to do with how real objects lend themselves (or do not lend themselves) to the accomplishment of the drive. The reality principle has to do with how one's own sexuality depends of other people's sexu-

ality. One's own desire is dependent on the desire of the other. What is characteristic of the drive is, to the contrary, a kind of power that searches to realize its own power, to increase its own power only for sake of self-affirmation. That is what makes the drive into something nihilistic, a nihilistic will to power. That makes the drive into powerful mechanism, but on same time into sterile form of mechanism. Drives are characterized by repetitive movements. Drives are closed systems in search of their own self-affirmation. Drives manifest themselves under the form of a thoughtless repetition or an opposition to all kinds of changes. Clearly what I sad about Freud's concepts of the drive applies best to Freud's picture of the death-drive. I suggest that Lacan was absolutely right when saying that the Freudian conception of the drive is really about the death-drive. Drives are related to death, because of their inertia, their opposition to all changes. They are also related to death or destruction by their force which is not held back by external principle. In Freud's theory, death-drives become destructive when they are disunited from erotic drives. I suggest that this is what is happening in the contemporary science's search for power for the sake of power.

If you agree with my trying to understand contemporary science in terms of Freud's death-drive, than I invite you to follow me also in my suggestion for possible remedies in terms of a desire to know. Desire is enrooted in an experience of impotence or lack. In my view the drive is a principle of power, and when that power is not held back by another power, when Thanatos is not held back by the power of Eros, then the power of the drive becomes excessive and destructive. Desire, to the contrary, is characterized by an experience of lack. Remembering what Plato says in his *Symposium* about Penia and Poros, we can account for the drive in terms of Poros. Desire is Penia, is related to the experience of a lack. For Plato Eros is child of both Poros and Penia, so it is force and lack, drive and desire together that characterize the erotic life. I would rather suggest to take them apart and understand contemporary science as a figure of Poros. The alternative to contemporary science would then be an account of knowledge in terms of Penia. What is a desire to know in opposition to drives? Desire is basically about objects. Drives are indifferent to objects. What characterizes desire since Augustine and the whole Augustinian tradition is the fact that the object of desire is lacking and that it is always double object. Desire searches for an impossible object. The real objects of a desire is a mere substitute for an unreachable object. It is this dynamic between finite objects and the infinite objects, between contingent objects and a necessary object, between human life and the life of God that is characteristic for the object of desire in the Augustinian tradition. It is this tension between a possible and an impossible object that characterizes desire in opposition to

self-sufficient mechanism of a repetitive drive. This division in the object of desire also affects the subject of desire. Lacan accounts for this in terms of a divided subject. Lacan also accounts for subjective desire in terms of my desire depending on the desire of the other. Here, again, desire is characterized by a loss of subjective autonomy. Desire is heteronomous; the desire of a particular subject depends of other subjects.

What I want to suggest is that the old Socratic paradigm for a desire of knowledge should be understood in these Lacanian terms of desire. That would mean several things. It would mean that questioning rather than certainty, impotence rather than a nihilistic search for power would become the regime of a contemporary thinking. It also suggests that philosophy should limit itself, or that philosophy should renounce its claim for a *mathesis universalis* or for a universal science. We should be prepared to accept some kind of pluralism in knowledge. It is not true that science doesn't think, but science thinks differently than philosophy. It is not true that art doesn't think, but art thinks differently. When one accepts this kind division of knowledge, then a new kind of dialogue is made possible. Then philosophers should renounce teaching scientists how to think, then they should be prepared to learn from scientists. Understanding the desire for knowledge in opposition to the drive to increase knowledge, emphasizing lack instead of the will to power would then turn philosophy into a kind of Socratic questioning, dialoguing. If I have had more time I would like to show that this is close to Bergson's latest work, about the two sources of morals and religions. Bergson's last book was almost contemporaneous with Husserl's *Crisis*. It was published in 1932--already in anticipation of the events of German nationalism that have led to Second World War. It was kind of claim for new form of humanism in terms of overcoming closed moral systems and pleading for openness, for diversity.

I thank you for your patience and your attention.

DISCUSSION

Prof. Dragan Prole: Dear colleagues, I invite you to ask questions, offer a comment or to express some open-minded criticism freely. Dear Professor Bernet, as far as I understood your lecture, you tried to say that we should reintegrate what we seem to have lost. By that reintegration you distinguished theoretical approach from ancient philosophy, especially the time when philosophy and science were not two separate disciplines. And who are claiming that the practical and pragmatical point of view is what really matters can certainly follow our tendencies in science. Our prime ministers are suggesting that we should be more practical, that we should reintroduce more ideas, that we should open space for more practical jobs, etc. So my question is a practical one: How can we convince our prime ministers and practical people from industry that theoretical approach should be somehow reintegrated and that philosophy and theoretical thinking should have more space in rethinking the crises of contemporary science? How can we find this place for negotiation and to be more reasonable in that access?

Prof. Rudolf Bernet: I have no illusions about philosophers becoming kings or philosophers teaching politicians what they should do. This has always ended up with philosophers ridiculing themselves or risking their own life, already in Plato. I think is that these politicians just do not see or have estranged themselves as much from ordinary people's lives as modern science has estranged itself from ordinary people's lives according to Husserl. Technology or practical concerns or economics, there is nothing to be sad against that, but this is not all that humans care about. All of us, all people have some spiritual aspirations, but they are taking what they are offered, and unfortunately, what they are offered on the present market of spiritual remedies for their disquietness is not the best one. I believe that, rather than extreme forms of religious sects, extreme forms of all kinds of ideologies -- nationalist or even racist -- the best that one can offer people is to help them to think by themselves. What does that mean – to think by one self? It is to take nothing for granted, as Husserl would sad. Phenomenological reduction is a complicate thing, but it is mainly about refraining from all too quick judgments and about the need to ask questions. Philosophy is good at helping people to formulate relevant questions. It is not just a matter of questioning. There is an art of formulating relevant questions. Not all questions that are equally relevant. Whenever a question arises somewhere it should be taken seriously and should be considered as to its relevance, its enlightening character or its sterile character. Maybe this is another way to invite you to ask further questions.

Zorica Mijartović: I have a similar question to the professor's. You said that, according to scientists, philosophy should become *mathesis universalis.* How can we make philosophers ask more questions of science, or position them to be more influential in scientific method, research, etc.?

Prof. Rudolf Bernet: I am not sure that I perfectly understood your question or there must be some kind of misunderstanding. Just to make things clear, I said that I don't think there is any chance for a restoration of philosophy as *mathesis universalis*. In Husserl we find a last attempt to restore the idea of a philosophical *mathesis univeralis*, which was the great idea of modernity. Personally, I would rather plead for the opposite, for a kind of philosophical modesty or for what I would call a sharing a competence that makes it possible to think about things from different approaches.

Zorica Mijartović: Maybe form of my question wasn't very good. Theoretical approach which professor mentioned is used in theoretical science only for success of experiment. Can we try to put those philosophical questions in physical science in other purpose? Can we ask philosophical questions in physical science?

Prof. Rudolf Bernet: There is clearly a new development in contemporary science. I have colleagues in life-sciences telling me how they are working and one gets the impression that the development is going out of hand. It is no longer about successively grasping phenomena, it is to be first published, even when their research is not quiet finished. One must also say that this is not all that is taking place in contemporary science. Unfortunately, however, that is most of what is taking place, and that is mostly where the money goes. But there is also a science asking proper philosophical questions about time, space, etc. I'm not entirely sure about that because it is not my domain, but I would not be surprised if the most interesting philosophy of science would be done by some scientists rather than philosophers. My impression is that what was popular in philosophy of science when I was student, has dried out, that there is not much going on in philosophy of science. Interesting things in philosophy of science are coming from scientists, just think of their questioning the irreversibility of time, etc. Then, again, why not question the distinction between practical and theoretical science, and its basis? It is one thing to restore *theoria*, the dignity of theoretical wondering in times of economical materialism, efficiency, etc. But another thing is to account for *theoria* in terms of its opposition to *praxis*. All *theoria* is related to practical concerns, and must have practical consequences. All of us have had some intellectual enlight-

ments. Some of us more than others, but they have changed our way of living. And every philosophy, as theoretical as it might be, like Husserl's *Logical Investigations*, changes a little bit our way of looking at things. Why would thinking be closed off from all practical concerns and consequences? Again, the proper answer to your question would be to question what people take for granted, namely that theory is opposed to praxis.

Goran Rujević: First of all, I really wish to say thank you for this wonderful and inspiring lecture. I do not have so much a question as a comment, so if you would just indulge me here. I think that your idea to call back Socratic ideal of asking questions is wonderful and very inspiring. I actually find redelivering this idea that whole problem is that we need to be asking more questions not knowing how we are going to be able to answer them quite refreshing. I think that idea is not just progressive but also humbling. I am quite optimistic that we are eventually going to reach such a position in modern science if for no other reason than because of the existence of contemporary theoretical physics, which by all accounts should not exist as it is because it is horribly impractical. All conclusions from those theories cannot be tested by practical means. They have practical implications but somewhere far, far into the future, a hundred or two hundred years away. What do you think, is this optimism that I have, founded?

Prof. Rudolf Bernet: I don't know exactly what to say about that. Optimism for the future of physics makes us pessimistic for the future of philosophy. Because, again, one can see that the old philosophical concern for cosmology has dried up in philosophy and it is actually taking place in theoretical physics. This is good for theoretical physics but maybe not entirely good for philosophy. At least that should lead philosophers to show more interest in what is going on in contemporary physics. What you described as a new development in contemporary physics, may be merely marginal and survive like philosophers and artists, despite the circumstances. One can be optimistic in showing that the human spirit seems to be of such a nature that it affirms its own claim despite all adverse circumstances. Yes, I think one can be optimistic. There were intellectuals who, in worst ideological situations, were thinking despite whatever was holding them back to think. So, yes, I have a kind of optimistic belief in the rebellious capacities of the human mind.

Aleksandar Ostojić: I'd like to go back to the notion of power, back to Leibniz. You said that the notion of power in way that Leibnitz described it does not play part in modern science. Then, later, you mentioned Freud's con-

cept in which the death drive, when separated from Eros, becomes destructive. So if I've got it right, we need counterbalances. You said an active force would become destructive without inertia, but what if inertia is separated from the active force? Would you describe the state of contemporary science as active force separated from inertia, or inertia separated from active force? What would be the concept of inertia separated of active force?

Prof. Rudolf Bernet: This is really going back to core what I wanted to show. My account of contemporary science would be that it is led by an unbound active force. What it is unbound from inertia is another issue, that was probably an all too quick jump in my presentation. What I find interesting in Leibniz is his account of substance in terms of active forces that are held back by something else that Leibnitz only secondarily relates to inertia, that he calls passive forces. I find it interesting that an active force should find in itself its own limitation. For Leibniz, unlike Spinoza, limitation does not come from another mode of the Substance. I am interested in a kind of active force that has an internal principle of limitation. Contemporary science seems to have lost any kind of understanding of the finitude of all human enterprises. That is what makes me say that contemporary science is an expression of a kind of unbound active force. Contemporary science seems to be unbound from its own finitude, from its distinction from other possible approaches to reality such as we can find it in philosophy, art, etc.

Branko Latinčić: I like that you tried to put the entire discourse of science into a social perspective. But when we talk about the pre-scientific world, I sometimes think that we avoid putting the pre-scientific world into social perspective. In that perspective the world is not romantic or harmonic; it is world of slavery… I think that science is always established in certain societies to fulfill certain social needs. What do you think? Shouldn't we be more careful when we want to retrieve that pre-scientific experience in philosophy, in thinking?

Prof. Rudolf Bernet: I was not pleading in favor of a return to the life-world. This is neither for Husserl nor for myself the end point of the journey. Life-world is absolutely no solution. It is for Husserl and for all of us just a starting point. Life-world is already influenced by science. It is important to think about how science and scientific forms of understanding have changed our life-world. Bergson is good at showing that science is so successful because it works with closed systems. He relates this to closed social systems. His plead goes in both ways. He says that science should be more

dynamic and that it should lead to more open forms of social life. Maybe this is not an answer to your question but, at least, it addresses an issue that we have in common.

Transcription made by
Tanja Todorović